

# ZIEGLER-NATTA CATALYST FOR POLYOLEFINS

## REFERENCE TO RELATED APPLICATION

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[001] The present application is a Continuation-in-part of U.S. Patent Application Serial Number 09/687,560, entitled, Ziegler-Natta Catalyst For Narrow to Broad MWD of Polyolefins, Method of Making, Method of Using, And Polyolefins Made Therewith, filed October 13, 2000, <sup>pat no 6,693,058</sup> incorporated herein by reference, which is a Continuation-in-part of U.S. Patent Application Serial Number 08/789,862, entitled, Ziegler-Natta Catalysts for Olefin Polymerization, filed January 28, 1997, which issued as US Patent 6,174,971 on January 16, 2001, also incorporated herein by reference.

## BACKGROUND OF THE INVENTION

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### [002] Field of the Invention

The present invention relates generally to catalysts, to methods of making catalysts, to methods of using catalysts, to methods of polymerizing, and to polymers made with such catalysts. More particularly, the present invention relates to polyolefin catalysts and to Ziegler-Natta catalysts, to methods of making such catalysts, to methods of using such catalysts, to polyolefin polymerization, and to polyolefins.

### [003] Description of the Related Art

Olefins, also called alkenes, are unsaturated hydrocarbons whose molecules contain one or more pairs of carbon atoms linked together by a double bond. When subjected to a polymerization process, olefins can be converted to polyolefins, such as polyethylene and polypropylene. One commonly used polymerization process involves contacting an olefin